

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
19 February 2004 (19.02.2004)

PCT

(10) International Publication Number  
**WO 2004/015003 A2**

(51) International Patent Classification<sup>7</sup>: C08L

(21) International Application Number:  
PCT/KR2003/000883

(22) International Filing Date: 2 May 2003 (02.05.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
10-2002-0046765 8 August 2002 (08.08.2002) KR

(71) Applicant (for all designated States except US): SK  
CHEMICALS CO., LTD. [KR/KR]; 600, Jeongja  
1-dong, Jangnan-ku, Suwon-city, Kyungki-do 440-301  
(KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): LEE, Jong-In  
[KR/KR]; 1001-802 Geunyoung apt., 222 Gumi-dong,  
Bundang-gu, Seongnam-city, Gyeonggi-do 463-802 (KR).  
KIM, Han-Seok [KR/KR]; 407-1303 Hosuma-apt.,  
Janghang-dong, Ilsan-gu, Goyang-city, Gyeonggi-do  
411-380 (KR). KIM, Byung-Hee [KR/KR]; 101-201

Jugong apt., 855 Jowon-dong, Jangnan-gu, Suwon-city,  
Gyeonggi-do 440-200 (KR). ROH, Hang-Duk [KR/KR];  
106-204 Sangrokmaeul apt., 1514 Sa-dong, Ansan-city,  
Gyeonggi-do 425-170 (KR). LEE, Youn-Seo [KR/KR];  
723-202 Youngpung apt., Cheoncheon-dong, Jangnan-gu,  
Suwon-city, Gyeonggi-do 440-330 (KR). JO, Joon-Sang  
[KR/KR]; 425-2002 Yeonkkotmaeul Byeoksan apt.,  
Jeongja 1-dong, Jangnan-gu, Suwon-city, Gyeonggi-do  
440-301 (KR).

(74) Agent: YOU ME PATENT & LAW FIRM; Teheran  
Bldg., 825-33, Yoksam-dong, Kangnam-ku, Seoul 135-080  
(KR).

(81) Designated States (national): JP, US.

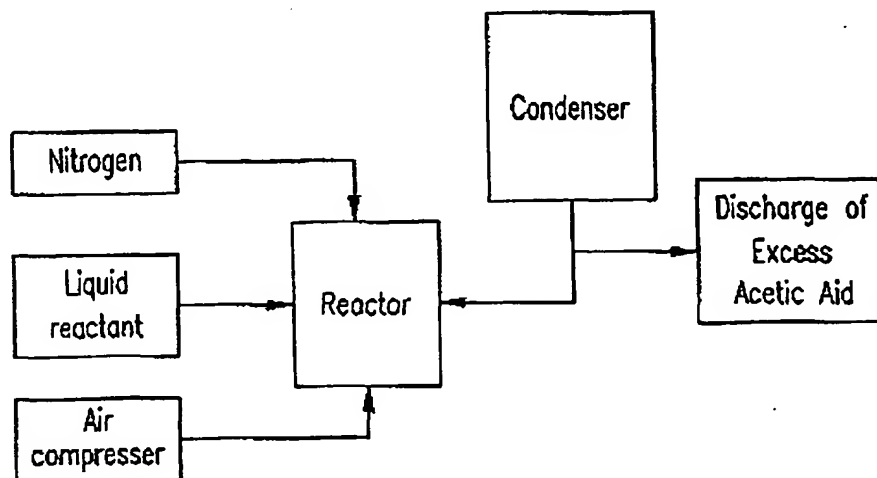
(84) Designated States (regional): European patent (AT, BE,  
BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU,  
IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).

Published:

— without international search report and to be republished  
upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: PREPARATION METHOD OF NAPHTHALENE DICARBOXYLIC ACID



(57) Abstract: The present invention relates to a method for the preparation of naphthalene dicarboxylic acid, and more particularly, to a method for the preparation of naphthalene dicarboxylic acid by oxidizing dimethylnaphthalene with oxygen in air in the presence of acetic acid solvent using the metal catalysts of cobalt and manganese, and using bromine as a reaction initiator, wherein the temperature of said oxidation reaction is 155 to 180 °C. The method for the preparation of naphthalene dicarboxylic acid of the invention enables the preparation of naphthalene dicarboxylic acid having high purity with a high yield in an economical way at a low temperature.

WO 2004/015003 A2